



Business Consulting Services

Assessing Data Quality

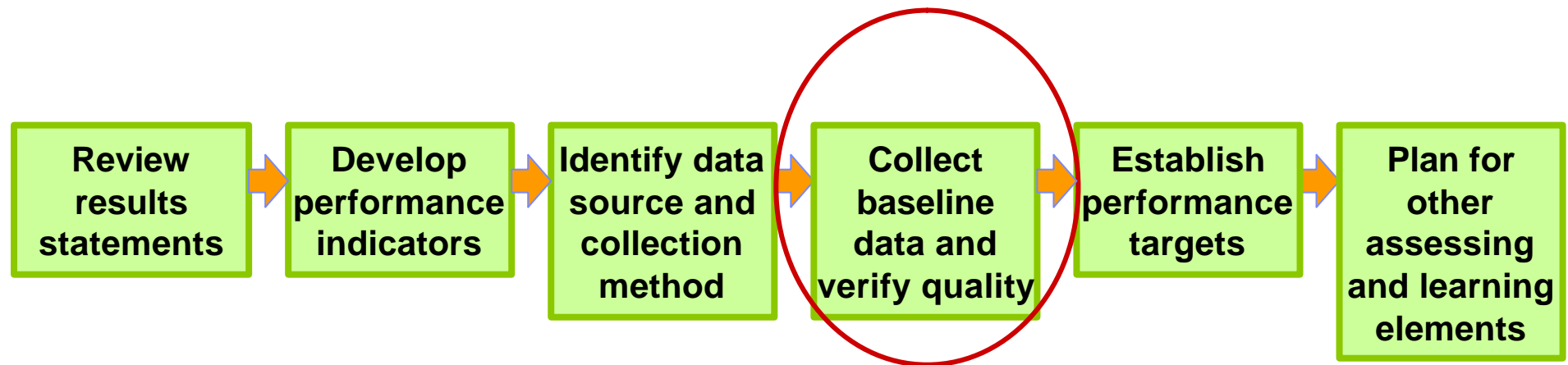
USAID Performance Management Workshop
2004

Integrated Managing for Results (IMR) Project
Contract AEP-C-00-99-00034-00

Learning Objectives

- Understand USAID standards for data quality
- Be familiar with techniques to assess data quality

The PMP Development Process



Performance Baseline

- Value of the performance indicator before the implementation of USAID-supported activities that contribute to the achievement of the relevant result

- Baselines can/should be:
 - Set just prior to the implementation of USAID-supported activities that contribute to the achievement of the relevant SO or IR
 - Measured using the same data collection method that the SO team will use to assess progress
 - Changed if the data collection method changes (document this!)

Why should we care about data quality?

Issues

MANAGEMENT

- Can you make decisions based on this data?
- Better quality data leads to better informed management and planning.
- Other Reasons?

REPORTING

- Is this data believable? Will it pass a USAID performance audit?
- Audiences want to know how “credible” your data is so they can trust your analysis and conclusions.
- Other Reasons?

Challenges

- Is useful data **available**? Depends on:
 - Data collection capacity of host government and partners
 - Access to government information
 - Public attitudes toward social data and surveys
 - Practicality and cost
 - Other?

- Are the available data “**good enough**” to meet USAID and partner needs?

ADS 203 Highlights on Data Quality

“Performance data should be as complete, accurate and consistent as management needs and resources permit.” (ADS 203.3.6.5)

ADS 203 on Assessing and Learning available:

- www.usaid.gov/pubs/ads/200/203.pdf

◆ Five **data quality standards**

- For management *and*
- For annual reporting

◆ How to conduct **data quality assessments**, depending on data source

- Implementing partners
- Secondary sources
- USAID as primary source

Five standards for quality of data

VALIDITY

INTEGRITY

PRECISION

RELIABILITY

TIMELINESS

Validity

- *Key question: Do data clearly and directly measure what we intend?*

Issue: Direct

- ◆ Result: Poverty of vulnerable communities in conflict region reduced
- ◆ Indicator: Number of people living in poverty
- ◆ Source: government statistics office
- ◆ *The government doesn't include internally displaced people (IDPs) in the poverty statistics*

Issue: Bias

- ◆ Result: Modern sanitation practices improved
- ◆ Indicator: Number of residents in targeted villages who report using "clean household" practices
- ◆ Source: door-to-door survey conducted three times a year
- ◆ *Most of the people in the targeted region work long hours in the fields during the harvest season*

Validity...Examples of Bias

- Instrument bias
- Recall bias
- Response bias
- Seasonal bias
- “Tarmac” bias
- Transcription errors

- Other?

Integrity

- *Key question: Are there mechanisms in place to reduce the possibility that data are manipulated for political or personal gain?*

What are some possible examples from your experiences?

Precision

- *Key question: Are the data precise enough to inform management decisions?*

What are some possible examples from your experiences?

Reliability

- *Key question: If you repeated the same measurement or collection process, would you get the same data?*

Issue: Consistency or Repeatability

- ◆ Result: Employment opportunities for targeted sectors expanded
- ◆ Indicator: Number of people employed by USAID-assisted enterprises
- ◆ Source: Structured interviews with USAID-assisted enterprises, as reported by implementing partner AAA, BBB, and CCC
- ◆ *The SO Team found out that the implementing partners were using these definitions:*
 - *AAA – employees means receives wages from the enterprise*
 - *BBB – employees means receives full-time wages from the enterprise*
 - *CCC – employees means works at least 25 hours a week*

Timeliness

- *Key question: Are data available timely enough to inform management decisions?*

Issue: How Frequent

- ◆ Result: Use of modern contraceptives by targeted population increased
- ◆ Indicator: Number of married women of reproductive age reporting using modern contraceptives (CPR)
- ◆ Source: DHS Survey
- ◆ *The DHS survey is conducted approximately every 5 years*

Also consider: how current is data? (data may be available annually but have significant time lag). Example of this?

Techniques to Assess Data Quality

- Goal is to ensure SO team is aware of:
 - Data strengths and weaknesses
 - Extent to which data can be trusted when making management decisions and reporting

All data reported to Washington for ... reporting externally on Agency performance must have had a data quality assessment at some time in the three years before submission.

- ADS 203.3.5.2 and 203.3.8.3

Who Should be Involved?

- SO team members
- Partners
- Sector specialists
- Specialists in data quality
- Local counterparts



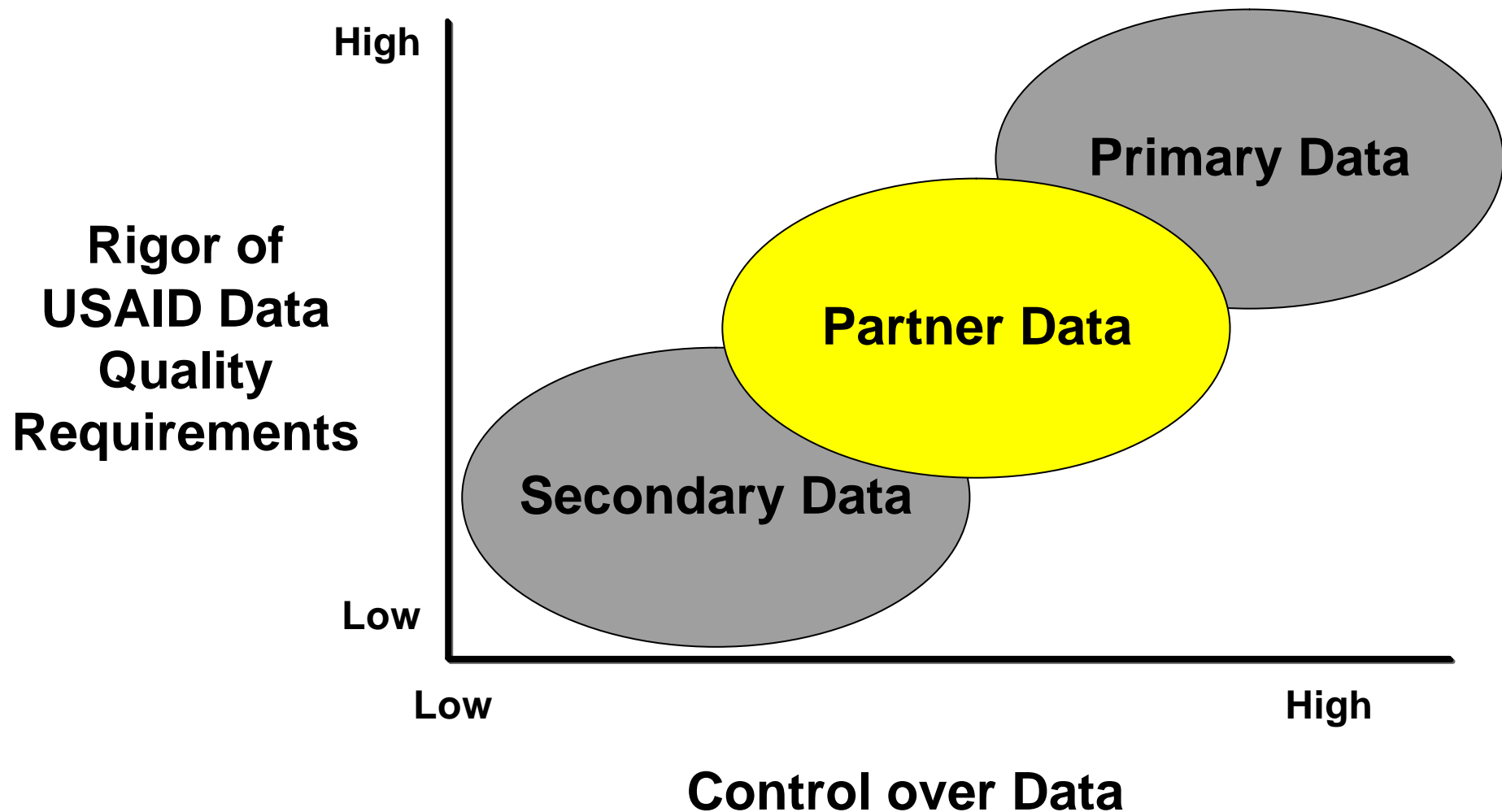
How? Steps to Conduct a USAID Assessment

1. Review performance data
 - Examine data collection, maintenance, processing procedures and controls
2. Verify performance data against Agency data quality standards
 - Reliability, precision, timeliness, validity, integrity
3. If data quality limitations are identified, take actions to address them
 - Triangulate; Supplement with data from multiple sources
 - Report the limitations
 - Revise indicator
4. Document the assessment and the limitations (in the Performance Indicator Reference Sheet)
5. Retain supporting documentation in files
 - Decisions and actions concerning data quality problems
 - Approach for conducting data quality assessment
6. If data will be included in the Mission Annual Report, disclose the DQA findings in the “data quality limitations” section of the Annual Report

Assessing the DQ Assessment Tools: Exercise (time permitting)

- 1. Would this tool be useful to you and your SO Team? Why, Why not?**
- 2. What did you like; what didn't you like about the tool?**
- 3. When would it be most useful to use this particular tool (eg, at the beginning of a contract/CA/grant agreement; while finalizing the PMP)**
- 4. Did you think of changes or modifications to the tool? If so, what were they?**

Guidelines for quality depend on source



Guidelines for Assessing Partner Data

- USAID may:
 - Periodically sample and review raw data
 - Review reports from partner to verify consistency
 - Conduct spot checks
 - Conduct audits of financial information
- Meeting requirements for data quality assessments need not be excessively onerous!

ADS 203 on Assessing and Learning available:

➤ www.usaid.gov/pubs/ads/200/203.pdf

Discussion of Data Collection by Partners

- What do partners collect during activity implementation?
- How do partners obtain the data?
- How is data communicated from the field to the partners' office?
- How is data processed before reporting to USAID?
- How is data reported to USAID?
- Other Issues?

Mission Will Plan for Data Quality Assessments

- Have an overall policy or procedure for assessing data quality
 - Conduct initial data quality assessment
 - Conduct periodic data quality assessments--at least triennially
 - Plan for Partner and USAID capacity development

- USAID/Armenia Program Monitoring and Evaluation Procedures provide the mandate and guidance for data quality assessment

Practical Tips for Assessing Data Quality

- Have a plan!
- Foster commitment and capacity for data quality within USAID and partner organizations
- Build data quality assessment into normal work processes
- Get feedback from users of the data
- Compare the data with data from other sources
- Obtain verification by independent parties

***The best way to improve data quality is
to USE the data!***

Resources on Data Quality

- TIPS 12: Guidelines for Indicator and Data Quality
 - www.dec.org/pdf_docs/PNACA927.pdf

- ADS 203 on Assessing and Learning
 - Available at: www.usaid.gov/pubs/ads/200/203.pdf